

The background of the cover is a photograph of an old, worn book. A magnifying glass is positioned over the book's pages, which are slightly out of focus. A red bookmark is visible at the top of the book. The text is overlaid on a semi-transparent dark grey rectangular area.

# International Journal of Library and Information Science

Volume 6 Number 3 September 2014  
ISSN 2141-2537



*Academic  
Journals*

## ABOUT IJLIS

The International Journal of Library and Information Science (**IJLIS**) (ISSN 2141 - 2537) is published monthly (one volume per year) by Academic Journals.

**The International Journal of Library and Information Science (IJLIS)** is an open access journal that provides rapid publication (monthly) of articles in all areas of the subject such as indexing styles, cart bibliography, information technology, database management, research methods etc.

The Journal welcomes the submission of manuscripts that meet the general criteria of significance and scientific excellence. Papers will be published approximately one month after acceptance. All articles published in IJLIS are peer-reviewed.

### Contact Us

Editorial Office: [ijlis@academicjournals.org](mailto:ijlis@academicjournals.org)

Help Desk: [helpdesk@academicjournals.org](mailto:helpdesk@academicjournals.org)

Website: <http://www.academicjournals.org/journal/IJLIS>

Submit manuscript online <http://ms.academicjournals.me/>

## Editors

**Dr. Tella Adeyinka**

*Dept. of Library information  
Studies, Faculty of Humanities,  
University of Botswana.  
Private bag 0022, Gaborone.  
Botswana..*

**Dr Ajay P Singh**

*Department of Library and Information Science,  
Banaras Hindu University (BHU),  
Varanasi  
India*

**Dr. Ifidon, Elizabeth Ijose**

*Ambrose Alli University  
Ekpoma  
Edo State  
Nigeria*

**Dr. Lawrence Abraham Gojeh**

*Jimma University,  
P. O. Box 378,  
Jimma,  
Ethiopia*

## Editorial Board

**Prof. Weimin Zhang**

*Humanities Reference and Instruction Librarian  
University of Colorado, Boulder*

**Dr. Anthi Katsirikou**

*University of Piraeus Library  
European Documentation Center  
Member of the Board of the Association of Greek  
Librarians and Information Professionals  
80 Karaole and Demetriou str,  
18532 Piraeus,  
Greece*

**Dr. Adaku Vivien Iwueke**

*Department of Information and Communication Studies,  
Faculty of Humanities and Social Sciences, University of  
Namibia,  
P/Bag 13301, 340 Mandume Ndemufayo Avenue,  
Pionierspark, Windhoek,  
Namibia*

**Dr. Elisha Chiware**

*Gulhane Military Medical Academy,  
School of Medicine,  
Department of Cardiology  
Specialization: Interventional cardiology, clinical  
cardiology, intensive care  
Turkey.*

**Dr. Topik Hidayat**

*Department of Biology Education  
Indonesia University of Education (UPI)  
Jalan Dr. Setiabudhi 229 Bandung 40154 Indonesia  
Specialization: Botany  
Indonesia*

**Dr. Feda Oner**

*Amasya University  
Education Faculty  
Amasya  
Turkey*

**Dr. Maitrayee Ghosh**

*Documentation division. I.I.T Campus, Kanpur  
P.K. Kelkar Library, Indian Institute of Technology.  
Kanpur,  
India - 208016*

**Dr. J. K. Vijayakumar**

*Associate Director Library Services  
American University of Antigua  
(College of Medicine, School of Nursing,  
College of Arts and Life Sciences)  
PB No W-1451, St Johns, Antigua,  
West Indies*

**Dr. Ray Kirk**

*Director, Health Services Assessment Collaboration (HSAC),  
Health Sciences Centre, University of Canterbury, Te Whare  
Wananga o Waitaha  
Private Bag 4800 Christchurch 8140,  
New Zealand*

**Dr. John T. Thompson,**

*Educational Computing Program  
Computer Information Systems Dept.  
Chase 208, Buffalo State College  
1300 Elmwood Avenue, Buffalo, NY 14222  
USA*

**Dr. Ku, Li-Ping**

*Library of Chinese Academy of Science,  
33 Beisihuan Xilu Zhongguancun, Beijing 100190, P.R.  
China*

**Dr. Khaiser Nikam**

*Department of Library and Information Science  
University of Mysore  
Mysore-570 006  
Karnataka  
India*

**Dr. Musa Wakhungu Olaka**

*University of Missouri  
School of Information Science and Learning Technology,  
111 London Hall,  
Columbia, MO 65201*

**Dr. Omwoyo Bosire Onyancha**

*University of South Africa,  
Department of Information Science,  
Theo Van Wyk Building 10-176, P.O. Box 392,  
UNISA 003.*

**ARTICLES**

**Research Articles**

- A reference analysis of doctoral theses in the field “Education”:  
An interesting issue for librarians as well as scientometricians  
or bibliometricians** 22  
Suresh K. Kagra\* and Sanjeev Sharma
- A study of availability and utilization of library electronic resources by  
undergraduate students in private universities in Ogun State, Nigeria** 28  
Ganiyu Oluwaseyi Quadri1\*, Airen Edale Adetimirin2 and  
Oluwafemi Adebayo Idowu
- Use of periodicals in Engineering College Libraries under North  
Maharashtra University, Jalgaon** 35  
Prashant S. Bhat

*Full Length Research Paper*

## A reference analysis of doctoral theses in the field “Education”: An interesting issue for librarians as well as scientometricians or bibliometricians

Suresh K. Kagra\* and Sanjeev Sharma

Department of Library and Information Science, Kurukshetra University, Kurukshetra, India.

Received 10 October, 2013; Accepted 05 September, 2014

The 3195 citations analyzed were cited in 35 doctoral theses of Education awarded to Kurukshetra University, Kurukshetra from the period 1995-2008. The bibliographic formwise distribution of citations accounted for 1380 (43.20%) periodical publications followed by Books 672 (21.04%). More than two third contributions (56.23%) were produced under single authorship. Largest of total cited periodicals were of Indian origin (31.01%) followed by the periodicals published from U.S.A. (17.83%) and U.K. (12.40%).

**Key words:** Collaboration, cybermertrics, webmetrics, education, behavioral, obsolescence, citing.

### INTRODUCTION

Bibliometric is a type of research method used in library and information science. It utilizes quantitative analysis and statistics to describe pattern of publication within a given field or body of literature. The researchers may use bibliometric method of evaluation to determine the influence of a single author or to describe the relationship between two or more authors or workers (Parameswaran, 2001). Bibliometric studies are used to identify the pattern of publication authorship citations or secondary journal coverage in the hope that, such studies can give an insight into the dynamics of the area under consideration. This consequently leads to better organization of information resources which is essential for their effective and efficient use. Authorship of a paper has become important for scientists and researchers and

understandably this topic has become an important area of study (VijayaKumar and Naqvi, 2002). Bibliometrics can be used to study productivity count (number of publications) of literature in a given field for the purpose of comparing the amount of research in different countries, the amount of research produced during different periods, or the amount of research produced in different subdivisions of a field, or types of publications, or amount of publications by individuals or organizations. It can be used to study the pattern of scattering literature on a subject in different periodicals in terms of the relationship of quantity of publications of individuals and their recognition and identification of papers. Bibliometrics can also be used to study citations used by researchers. The term Bibliometric was first introduced in 1969, in

\*Corresponding author. E-mail: S80kagra@gmail.com

Author(s) agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](http://creativecommons.org/licenses/by/4.0/).

Pritchard in preference to the term "Statistical Bibliography" coined by Hulme in 1923. The word "Bibliometrics has two roots, 'Biblio and Metrics'...", meaning 'measurement'. Thus, Bibliometrics is an application of mathematical and statistical method for measuring quantitative and qualitative changes in producing literature in a given subject or area of specialization (Kumar, 2005). There are others terms related to the bibliometrics study, such as Scientometrics, Cybermertrics and Webmetrics, Information and Librametrics. In other words, it is a qualitative and quantitative analysis of publications for the purpose of ascertaining specific kinds of phenomena. There are two types of Bibliometrics Studies: Descriptive Studies and Behavioral Studies. Descriptive studies are those studies, which describe various features of a literature. These cover medium of communication, subject matter and volume of information covered; while behavioral studies explore the bibliographic relationship between different documents. These studies also show the relationship between different authors and disciplines (Devrajan, 1997).

### Citation analysis

Citation analysis is an established researches tool used by librarians, teachers and information scientist to indicate the relationship that exists between the cited documents. Citation analysis is largely used for putting things in order. The things ordered can be articles, books, authors, organizations, etc. The type of ordering can be linear like ranking and multidimensional like citation networks (Baughman, 1974).

### Objectives

The objectives of the study are to know the following:

1. Year wise distribution of papers;
2. Bibliographic form wise distribution;
3. Ranking of cited journals;
4. Subject wise analysis of papers;
5. Authorship pattern in subject wise;
6. The degree of collaboration in a literature.

### Statement of the problem

The university library of Kurukshetra primarily caters to requirements of post-graduate or research students besides the teaching faculty. The user community of a university library has homogeneity in its literature use pattern because preparation for research is done at the level of master's degree. The present study aims to identify the primary information use pattern of researchers in the recent year in the field of education in Kurukshetra University, Kurukshetra. There are a number

of methods that can be used in studying the use of information: 1. By asking people about it; 2. By observing its occurrence; 3. By examining the resultant products.

### REVIEW OF LITERATURE

Vijayakumar and Naqvi (2002) conducted a study on "Authorship Trend in Azadirachta Indica literature: A Bibliometric study". The work analyzed the abstract of papers in Biological research output in Azadirachta Indian for a period of 11 years (1989-99). The findings were likely to have general implications for the scientific community working on Azadirachta Indica. The study revealed that increasing collaborative research was seen in the field of Azadirachta Indica. The study also revealed that collaborative research was more favorable than solo research. The degree of collaboration in Azadirachta Indica literature was 0.94.

Surendra and Kumar (2005) conducted a study on "A Bibliometric study of the Journal of Oil Seeds Research, since 1993-2001". This study shows that journals were still the most favorable form of documents in research. They are few titles of journals, cited by most researchers and libraries must recognize them. To save money, it is better to use documents instead of being occasionally used by scientists. Often scientists, in doing small researches, subscribe to get information from journals related to their field without much use and refer to few articles with many volumes on purchase.

Damodaram (1998) undertook a citation study of Doctoral dissertations of groundnut, submitted to 66 universities in India from 1948 to 1996. In the first 27 years since 1948 only 43 theses (13%) were produced. Significant trend of growth on groundnut theses was seen in the subsequent years during 1981-1992. 70% of total theses on groundnut were submitted to 12 major universities. 58.82% of theses were submitted to 19 agricultural universities and 41.18% to 47 non-agricultural universities.

### METHODOLOGY

The study being empirical in nature is designed to estimate the extent of use of various documentary sources of information in the process of identification, selection, designing, execution and presentation of doctoral research studies during a specified period of 1995-2008 in a particular field of education in Kurukshetra University, Kurukshetra. The design of the study also facilitates identification of other relevant characteristics of literature used like documents, their subject wise distribution, country wise distribution and authorship pattern. After a careful examination of various studies conducted by citation count, an instrument was designed to fulfill the specific objectives of the present study, which consists of 5"x 3" slips. The information is written down on those slips from the citations of the theses.

### Analysis of data

This article includes analysis of primary data of the study. Data

**Table 1.** Year wise distributions of citations.

| Year  | No of theses | Citations | Average Citation/per theses |
|-------|--------------|-----------|-----------------------------|
| 1995  | 1            | 120       | 120.00                      |
| 1996  | 4            | 280       | 70.00                       |
| 1997  | 3            | 236       | 78.00                       |
| 1998  | 4            | 268       | 67.00                       |
| 1999  | 5            | 492       | 98.4                        |
| 2000  | 1            | 92        | 92.00                       |
| 2001  | 1            | 96        | 96.00                       |
| 2002  | 1            | 116       | 116.00                      |
| 2003  | 1            | 108       | 108.00                      |
| 2004  | 6            | 640       | 106.66                      |
| 2005  | 6            | 522       | 87.00                       |
| 2006  | 1            | 108       | 108.00                      |
| 2007  | 1            | 117       | 117.00                      |
| Total | 35           | 3195      | 91.28                       |

**Table 2.** Bibliographic form of cited literature.

| No. | Bibliographic form            | Citations | %      |
|-----|-------------------------------|-----------|--------|
| 1.  | Periodicals                   | 1380      | 43.20  |
| 2.  | Books                         | 672       | 21.04  |
| 3.  | Reports                       | 553       | 17.31  |
| 4.  | Conference Paper/ Proceedings | 369       | 11.54  |
| 5.  | News papers                   | 22        | 0.68   |
| 6.  | Dissertations                 | 79        | 2.47   |
| 7.  | Theses                        | 111       | 3.47   |
| 8.  | Others                        | 9         | 0.29   |
|     | Total                         | 3195      | 100.00 |

collected from Ph. D theses in Education (1995-2008) field have been classified, tabulated and analyzed in accordance with the set objectives of the study. Only data belonging to the periodicals were analyzed in depth. The present study includes analysis of 3195 citations from 35 Ph. D theses in the field of Education.

Table 1 shows that there is no significant change in the number of citations over different years. The average numbers of citation per thesis submitted in the year 1998 were lowest (67.00) in the thirteen year period for which data were analyzed. One theses submitted in 1995 contained the highest number of citations i.e. 120. The average number of citations per theses for the whole study was 91.28, which is relatively low compared to average citations of theses of the previous study (120).

Table 2 presents the different forms of literature used by research scholars of Education. Out of 3195 citations 1380 (43.20%) are from periodical publications followed by books 672 (21.04%). There are the two major forms of literature which comprise 64.24% of total citations. The rest are reports, 553 (17.31%); Conference papers/ proceedings, 369(11.54%); newspapers, 22(0.68%); dissertations, 79 (2.47%); theses, 111 (3.47%) and 9(0.29%). Table 3 shows the ranked list of cited journals with their citation percentages. In Education, 22 journals have been cited at least 10 times or more. These 22 journals account for 709 citations (%) out of 1380 and the remaining 319 journals have been cited less than 10 times, accounting for 48.62% citations. First 10 periodicals which have been cited at least 20

times or more contribute 36.87% of total periodical citations. These may be considered as most useful and core journals. Journal of Indian Education is at the top of the rank list with the highest citations (6.96%). It is followed by Journal of Higher Education (6.08%). These two most cited journals contribute 13.04% and are of Indian origin. Most of the first 22 journals which comprise 80% citations of total periodical literature are from India, followed by USA (5) and UK (2).

Table 4 shows that out of the first 10 journals of both studies, 5 journals are common; however, their ranks have changed. In previous study, the journal which was at the top of rank list is in the present study at 11<sup>th</sup> place, and the journal which was at 10<sup>th</sup> place in previous study, in present study is at 2<sup>nd</sup> place. Indian Educational Review which is at 5<sup>th</sup> place in present study was at 22<sup>nd</sup> place in previous study.

While among the 10 most cited periodicals only 6 are currently being subscribed by the university Library. These finding greatly differ from the previous study, where 9 out of first 10 journals were available in the university library (Table 5).

Table 6 indicates that the research scholars of Education have cited the periodicals from 16 countries. Majority of the cited periodicals belong to three countries and out of these India is at the top with 80 (31.01%) periodicals, followed by USA (17.83%) and UK (12.40%). This shows that researchers of Education in Kurukshetra University do not use only Indian periodicals but foreign periodicals also to a great extent.



**Table 3.** Rank lists of periodicals.

| No. | Ranks No. | Periodical title                                  | No of Citations | Cumulative citations | %     | Cumulative % | Country |
|-----|-----------|---|-----------------|----------------------|-------|--------------|---------|
| 1.  | 1         | Journal of Indian Education                       | 96              | 96                   | 6.96  | 6.96         | India   |
| 2.  | 2         | Journal of Higher Education                       | 84              | 180                  | 6.08  | 13.04        | India   |
| 3.  | 3         | Journal of Education & Psychology                 | 72              | 252                  | 5.22  | 18.26        | India   |
| 4.  | 4         | American Education Research Journal               | 46              | 298                  | 3.33  | 21.59        | USA     |
| 5.  | 5         | Indian Education Review                           | 42              | 340                  | 3.05  | 24.64        | India   |
| 6.  | 6         | British Journal of Educational Psychology         | 38              | 378                  | 2.75  | 27.39        | U.K     |
| 7.  | 7         | Abhigyan  | 36              | 414                  | 2.60  | 29.99        | India   |
| 8.  | 7         | Educational Quarterly                             | 36              | 450                  | 2.60  | 32.59        | India   |
| 9.  | 8         | Indian Education Abstracts                        | 31              | 481                  | 2.25  | 34.84        | India   |
| 10. | 9         | Edutracks   | 28              | 509                  | 2.03  | 36.87        | India   |
| 11. | 9         | Media & Technology for Human Resource Development | 28              | 537                  | 2.03  | 38.90        | India   |
| 12. | 9         | Perspectives in Education                         | 28              | 565                  | 2.03  | 40.93        | India   |
| 13. | 10        | University News                                   | 22              | 587                  | 1.59  | 42.52        | India   |
| 14. | 11        | Education Research                                | 17              | 604                  | 1.23  | 43.75        | USA     |
| 15. | 12        | Exceptional Children                              | 16              | 620                  | 1.16  | 44.91        | USA     |
| 16. | 13        | Indian Journal of Disability and Rehabilitation   | 15              | 635                  | 1.09  | 46.00        | India   |
| 17. | 13        | Harvard Education Review                          | 15              | 650                  | 1.09  | 47.09        | UK      |
| 18. | 14        | Journal of Educational Research & Extension       | 14              | 664                  | 1.02  | 48.11        | India   |
| 19. | 14        | Haryana Journal of Education                      | 14              | 678                  | 1.02  | 49.13        | India   |
| 20. | 15        | Journal of Educational Psychology                 | 11              | 689                  | 0.79  | 49.92        | USA     |
| 21. | 16        | Disabilities and Impairments                      | 10              | 699                  | 0.73  | 50.65        | India   |
| 22. | 16        | Journal of Educational Research                   | 10              | 709                  | 0.73  | 51.38        | USA     |
|     |           | Remaining 319 titles cited less than 10 times     | 671             | 1380                 | 48.62 | 100.00       | -----   |

**Table 4.** Common periodicals in the rank lists of the two studies.

| Title of the periodical               | Rank in present study | Rank in previous study |
|---------------------------------------|-----------------------|------------------------|
| Journal of Higher Education           | 2                     | 10                     |
| American Educational Research Journal | 4                     | 8                      |
| Indian Educational Review             | 5                     | 29                     |
| Abhigyan                              | 7                     | 9                      |
| Indian Educational Abstracts          | 8                     | 6                      |
| Edutracks                             | 9                     | 7                      |
| Harvard Educational Review            | 13                    | 11                     |
| Education Research                    | 11                    | 10                     |
| Haryana journal of Education          | 14                    | 12                     |
| Journal of Educational Research       | 16                    | 13                     |

Table 7 shows that 138 (53.48%) periodicals cited by the research scholars are from their own filed i.e. Education, followed by Psychology with 48 scholars. Periodicals were cited from generalia 24 (9.31%) and remaining 28 (10.85) periodicals were cited from other subjects. Subject of 20 periodicals could not be determined as their subject was not expressed from their titles.

Table 8 shows the authorship pattern reflected in periodical articles. Single author articles contributed 776 (56.23%) citations, followed by two authors' contributions 406(29.42%) and three authors' contributions 136 (9.86%). The remaining articles are contributed by four or more authors.

Table 9 shows that 192 (13.92%) periodicals articles were in the

range of 0-5 years old, 324 (23.48%) articles were in the range of, 6-10 years old, 488 (35.36%) articles were the range of 11-20 years old, and 368 (26.66%) articles were more than 20 years old. Highest numbers of articles were in the range of 10 years old. It shows that researchers in education cite old literature more than current literature.

### Findings of the study

The present study was an effort to identify the information

**Table 5.** Availability of periodicals in Kurukshetra University Library.

| Sr. No | Title of periodicals                                | Rank |
|--------|---|------|
| 1.     | Journal of Indian Education                         | 1    |
| 2.     | Journal of Education & Psychology                   | 3    |
| 3.     | British Journal of Educational Psychology           | 6    |
| 4.     | Educational Quarterly                               | 7    |
| 5.     | Media and Technology for Human Resource Development | 9    |
| 6.     | Perspectives in Education                           | 9    |
| 7.     | Exceptional children                                | 12   |
| 8.     | Indian Journal of Disability and Rehabilitation     | 13   |
| 9.     | Journal of Educational Psychology                   | 15   |
| 10.    | Disabilities and Impairments                        | 16   |

**Table 6.** Country wise distribution of periodicals.

| Country      | periodicals | %      |
|--------------|-------------|--------|
| India        | 80          | 31.01  |
| USA          | 46          | 17.83  |
| UK           | 32          | 12.40  |
| Australia    | 18          | 6.98   |
| Netherland   | 16          | 6.20   |
| Canada       | 11          | 4.26   |
| Germany      | 9           | 3.48   |
| Sri Lanka    | 7           | 2.71   |
| Switzerland  | 5           | 1.93   |
| Kenya        | 3           | 1.16   |
| Saudi Arabia | 2           | 0.78   |
| Iran         | 2           | 0.78   |
| Romania      | 2           | 0.78   |
| Malaysia     | 1           | 0.39   |
| Pakistan     | 1           | 0.39   |
| Hungary      | 1           | 0.39   |
| Unidentified | 22          | 8.53   |
| Total        | 258         | 100.00 |

**Table 7.** Subject wise distribution of periodicals.

| Sr.No. | Subject      | Periodicals | %      |
|--------|--------------|-------------|--------|
| 1.     | Education    | 138         | 53.48  |
| 2.     | Psychology   | 48          | 18.60  |
| 3.     | Generalia    | 24          | 9.31   |
| 4.     | Others       | 28          | 10.85  |
| 5.     | Unidentified | 20          | 7.76   |
|        | Total        | 258         | 100.00 |

use pattern of the research scholars in the Department of Education Kurukshetra University, Kurukshetra on the basis of citations cited by 35 doctoral theses submitted

during 1995-2008. The following were some important findings of the study:

1. Periodicals articles were the major source of information used by the researchers. Almost half of the total citations were from periodical articles followed by books (21.04%).
2. 22 periodicals accounted for more than half (70%) of total periodical citations and two Indian periodicals titled, Journal of Indian Education and Journal of Education and Psychology were the most used periodicals.
3. Only one out of three most cited periodicals (i.e. 7 out of 22 periodicals) were available in the Kurukshetra University Library. This shows that availability of most used periodicals in the field of education is far from satisfactory.
4. Largest number of total cited periodicals were of Indian origin (31.01%), followed by the periodicals published from U.S.A. (17.83%) and U.K. (12.40%).
5. More than two third contributions (56.23%) were produced under single authorship. This is a common phenomenon in social sciences.
6. Only one third of total citations were 10 years or less in age while almost the same number of citations (26.66%) were more than 20 years old. It shows that research scholars in Education use relatively old literature.

## Conclusion

The study was intended to ascertain the information use pattern of the researchers in Education based on the citations provided in their doctoral theses. It has now become an established tool to aid the formulation of various library policies and making decisions about specific bibliographical forms and publications. The study was conducted by making use of available doctoral theses in the university library as well as the department of education library. The instrument used for data collection was slip of 5" X 3" size. The findings based on

**Table 8.** Authorship pattern.

| No. of Authors       | No. of citations | %      | Cumulative % |
|----------------------|------------------|--------|--------------|
| One author           | 776              | 56.23  | 56.23        |
| Two author           | 406              | 29.42  | 85.65        |
| Three author         | 136              | 9.86   | 95.51        |
| Four or more authors | 62               | 4.49   | 100.00       |
| Total                | 1380             | 100.00 |              |

**Table 9.** Obsolescence of periodicals literature.

| Period intervals (in years) | No. of citations | %      |        |
|-----------------------------|------------------|--------|--------|
| 0-5                         | 192              | 13.92  | 13.92  |
| 6-10                        | 324              | 23.48  | 37.40  |
| 11-20                       | 488              | 35.36  | 72.76  |
| More than 20                | 368              | 26.66  | 99.42  |
| Incomplete citations        | 8                | 0.58   | 100.00 |
| Total                       | 1380             | 100.00 |        |

the analyzed data revealed a number of significant aspects of the literature use pattern of the researchers. Findings of the study were compared by the references cited in the theses of the Kurukshetra University.

### Conflict of Interests

The authors have not declared any conflict of interests

### REFERENCES

- Baughman JP (1974). Problems and performance of the Role of Chief Executive in the General Electric Company, 1882-1974( working paper, Graduate School of business Administration Harvard University, 1974).
- Damodaram T (1998). Growth of Doctoral Dissertations on Groundnut In India: A Study. *Ann. Libr. Sci. Document.* 45(1):32-38.
- Devrajan G (1997). *Bibliometric Studies.* Ed. 1:1-294.

- Parameswaran M, Smitha KG (2001). Bibliometric Analysis of LISA. *Ann. Libr. Inform. Stud.* 48(4):149-156.
- Surendra K, Kumar S (2005). A Bibliometric Study of the Journal of Oil Seeds Research, Since 1993-2001. *J. Inform Manage.* 42(3):305-334.
- Vijayakumar M, Naqvi SH (2002). Autorship Trend in azadirachta indica literature: A Bibliometric study. *SRELS J. Inform. Manage.* 39:445-455.

*Full Length Research Paper*

## A study of availability and utilization of library electronic resources by undergraduate students in private universities in Ogun State, Nigeria

Ganiyu Oluwaseyi Quadri<sup>1\*</sup>, Airen Edale Adetimirin<sup>2</sup> and Oluwafemi Adebayo Idowu<sup>1</sup>

<sup>1</sup>Kenneth Dike Library, University of Ibadan, Nigeria.

<sup>2</sup>Department of Library, Archival and Information Studies, University of Ibadan, Nigeria

Received 17 December, 2013; Accepted 27 August, 2014

The degree of availability and utilization of e-resources in any university library may influence the information services provision to students. The main objective of the study was to investigate the availability and utilization of e-resources by undergraduate in selected private university libraries in Ogun State, Nigeria. Descriptive survey design was adopted and the study population consisted of 9700 undergraduates from Babcock and Redeemer's universities. Simple random sampling was used to select a sample of 291 and the questionnaire was the main instrument used for data collection. Data were analyzed using SPSS specifically descriptive statistics consisting of tables of frequency and percentage. The findings revealed that the Internet was readily available in Babcock (83.5%) and Redeemer (92.8%), while other e-resources were not readily available. Most of the respondents in Babcock (64.0%) and Redeemer (89.1%) used the e-resources for assignment and research/project. Poor Internet connectivity, lack of relevant e-resources in various disciplines, erratic power supply, and lack of technical know-how were the major challenges faced by the respondents. The Internet and e-journals are important sources of information for both universities undergraduate students. Also, the availability and use of e-resources has no doubt contributed meaningfully to the information acquisition for class work, assignment and research needs of the students.

**Key words:** Availability, utilization, library, electronic resources, undergraduate students, private universities.

### INTRODUCTION

Universities are established primarily to support and cater for teaching, learning and research activities of parent institution. University students visit the libraries in order to retrieve accurate, adequate, relevant and current information in electronic resources form for effective and efficient teaching, learning and research work. Library

users include undergraduates, postgraduates' information professionals, staff and other researchers from outside the university community who intend to use the library. The undergraduates are expected to read further after class instructions to collect relevant information for class assignments, seminars, term papers, dissertations, thesis

\*Corresponding author. E-mail: [qudriseyi@yahoo.com](mailto:qudriseyi@yahoo.com).

and projects. This information could be retrieved from the electronic resources in the library.

The undergraduates of university library need information to satisfy their social and psychological needs to promote and enhance their academic pursuit during their course of study in the university. The purpose of the university libraries is to provide adequate and relevant information resources both in print and non-print formats. The print information resources like journals, textbooks, magazines, newspapers and reference materials and non-print like CD-ROM, audio-visual materials, micro-films, micro fiches, databases and e-resources are to support class assignments, project work, term papers and seminar presentation by providing relevant information and services provision for effective and efficient achievement of academic excellence. According to AACR2, in Weitz (2006) an electronic resource is: "Material (data and/or program(s)) encoded for manipulation by a computerized device. This material may require the use of a peripheral directly connected to a computerized device (e.g., CD-ROM drive) or a connection to a computer network (e.g., the Internet). Huge amount of money is spent on e-resources in many university libraries (Bhat, 2009). Furthermore, many Nigerian university libraries spend a great proportion of their annual budget on e-resources for the provision of accurate and timely information for better educational excellence.

The level of availability and utilization of e-resources in any university library may influence the information services provision to students in that library. Adedeji (2000) noted that the level of e-resources available to any university library and the degree of use to which they are put determine the information services delivery of the library. However, e-resources when available and skillfully used, influence information services provision by making them more meaningful. Efforts have been geared towards the provision of e-resources such as e-journals, e-book, CD ROM databases, and on-line databases in Nigerian private university libraries. These resources are provided in order to improve the information services in private universities; hence the quality of education depends on the level of availability and utilization of the e-resources (Adedeji, 2000).

Library users are a variable influencing the use of e-resources in a university. It is reasonable to assume that the more the users use the library, the more familiar they will be with its resources, including its electronic resources. However, if a library user uses the library primarily as a quiet and convenient place to study, they may not be aware of its resources at all, as compared to the one who never visits the library. Several studies have shown that users use the library mostly as a place to study and make photocopies and use the e-resources to provide accurate and timely information (Whitmire, 2001). The introduction of electronic information resources into the library has no doubt brought about paradigm shift in

the information services provision. This is evident in the way people now seek for and use information (Manda, 2006). People do not really have to come to the library physically before they can make use of the resources. However, in spite of these huge advantages of e-resources, a number of factors or obstacles still serve as impediments to the utilization of these e-resources by the library users. These include irregular power supply, poor network connectivity, inadequate funding, lack of expertise, lack of technological infrastructure to support the services, as well as poor IT skills, to mention but a few (Manda, 2006).

Ka (2005) recommended that university libraries play an importance role in complimenting research by funding, provision of facilities and dissemination of information. University libraries do not just acquire books and journals and offer space for student learning, but they also provide systematically digitized information which helps in prolonging the life span of the school information. University libraries, as they become more and more digitized, will play an important role in offering a greater support service for young professors and doctoral as well as undergraduates which will help in the development of their academic careers.

Aguolu and Aguolu (2002) opined that availability should be viewed from both national and instructional levels. They attribute the lack of availability of information sources to the steady proliferation of universities in Nigeria: federal, state, and private, along with increases in students and faculty, and the diversification of courses and academic and research programmes, without adequate information sources to meet the actual and information needs. They identify obstacles to the development of adequate information sources. Aguolu (2002) also posited that Nigerian universities are in different stages of e-resources development, availability and use.

According to Aguolu and Aguolu (2002), resources may be available in Nigeria university libraries and even identified bibliographically as relevant to one's subject of interest, but the user may not be able to lay hands on them. One may identify citations in indexes, but may not have access to the sources containing the relevant articles. The more available and accessible e-resources are the more likely they are to be used.

A study conducted by Marama and Ogunrombi (2000) confirmed high unavailability of library and information science (LIS) collections in most Nigerian university libraries, which had a negative effect on the use of information sources in the libraries studied. The librarians cannot conduct quality research and get published, and library students cannot even use library services. The authors recommended that at least 5 percent of the book budget be set aside for LIS information sources. The study, though limited to LIS, can be generalized to other subject areas. A similar study by Okiy (2000) showed an unavailability rate of only 7.5%. Iyoro (2004) found that

availability of serials at the University of Ibadan was 94 percent, with 242 of 256 respondents agreeing that serial publications are available and readily accessible.

Aguolu and Aguolu (2002) noted that availability of an information source does not necessarily imply its accessibility, because the source may be available but access to it is prevented for one reason or the other e.g access combination. Availability of relevant e-resources affects how frequently scholars use them (Eason et al., 2000). The provision of e-resources varies among disciplines and is mostly available in science and medicine and least in social sciences and humanities (Borgman, 2000).

There have been many studies on use and users of e-journals in the professional literature in some years back. In a recent exhaustive review of the literature on the subject that is e-journals, Tenopir (2003) analyzed the results of over 200 studies of the use of e-resources in libraries published between 1995 and 2003. The main conclusion of the studied review was that e-resources have been rapidly adopted in academic areas, though the behavior varies according to the discipline or subject area.

Ojo and Akande (2005) in a survey of 350 respondents examined undergraduates' access, usage and awareness of e-resources at the University College Hospital (UCH) Ibadan, Nigeria. The study shows that the level of usage of the e-resources by undergraduates is not high. According to them, major problem however identified is lack of information retrieval skills for exploiting e-resources, thus making the level of usage of resources by medical students very low.

Gakibayo et al. (2013) opined that the merits of electronic resources over printed ones include the following: speedy access, ease of use, ability to search multiple files at a time and ability to access documents from outside the university library to mention but few. The author further lamented that for students to utilize the growing range of electronic resources they must acquire and practice the Information Technology (IT) skills necessary to exploit them.

Jagboro (2003) had also emphasized the emerging reliance and attitude of users to e-resources. In a study she conducted in some Nigerian University libraries, it was revealed that 45.2% of undergraduates accessed e-resources from cybercafés. Though this attitude, according to her is due to the proximity of cybercafés to user facilities. Fatoki (2004) investigated the impact of library resources and the Internet among undergraduate students in Ibadan and found that 65% of the respondents use the Internet for research work while 35% do not use the Internet for research work. Her findings also indicated that 72% of students preferred to use the university library's Internet services, 35% the cybercafé, and 5% neither.

This study was therefore, designed to investigate the availability and use of library e-resources by undergra-

duate students in selected private university libraries in Ogun State, Nigeria.

### Objective of the study

The objectives of the study are to:

find out the types and levels of availability of e-resources to undergraduates in the selected private university libraries in Ogun State; identify the purpose of use of e-resources by undergraduates in the selected private university libraries in Ogun State; find the level and frequency of utilization of e-resources by undergraduates in the selected private university libraries in Ogun State and find out the challenges to the utilization of e-resources by undergraduates in the selected private university libraries in Ogun State.

### RESEARCH METHODOLOGY

The survey research design was adopted for this study and the target population consisted of two private Universities in Ogun State, Nigeria: Babcock and Redeemer University. There were 7,500 library users in Babcock and 2,200 in Redeemer respectively which gave a total of 9,700 respondents. Simple random sampling technique was employed to 225 respondents from Babcock and 66 respondents from Redeemer universities giving a total of 291. The questionnaire was the major instrument used for the data collection. Data collected was analyzed using SPSS specifically descriptive statistics such as tables, frequencies and percentages.

### RESULTS AND DISCUSSION

A total of two hundred and ninety one (291) copies of the questionnaire were administered to respondents in both Babcock and Redeemer Universities. Two hundred and twenty five (225) copies were administered to Babcock University, out of which 200 copies were duly filled and returned giving a response rate of 88.9%. For Redeemer University, 66 copies were administered to the respondents in Redeemer University and 55 copies were duly completed and returned giving 83.3% response rate. Thus, the overall response rate was 87.6%.

Table 1 revealed that majority of the respondents 93 (46.5%) in Babcock University were in their 400 level of study while most of those in Redeemer University 17(30.9%) were in 200 level. The least of the respondents 11(5.5) were in 100 level in Babcock and 9(16.4%) in Redeemer. Also, 105(52.5%) of the respondents in Babcock and 32(58.2%) in Redeemer were males while 95(47.5%) in Babcock and 23(41.8%) in Redeemer were females. Most of the respondents 78(39%) in Babcock were between 22 and 24 years of age while majority of those in Redeemer 26(47.3%) were between 19 and 21years of age. The age range that had the least number of respondents in both universities was less than 16 years of age. The analyses also revealed that majority

**Table 1.** Demographic characteristics of the respondents.

| Variable       |                   | Babcock |      | Redeemer's |      |
|----------------|-------------------|---------|------|------------|------|
|                |                   | N       | %    | N          | %    |
| Level of study | 100               | 11      | 5.5  | 9          | 16.4 |
|                | 200               | 28      | 14.0 | 17         | 30.9 |
|                | 300               | 53      | 26.5 | 14         | 25.5 |
|                | 400               | 93      | 46.5 | 15         | 27.3 |
|                | 500               | 15      | .5   | -          | -    |
| Sex            | Male              | 105     | 52.5 | 32         | 58.2 |
|                | Female            | 95      | 47.5 | 23         | 41.8 |
|                | Less than 16years | 3       | 1.5  | 1          | 1.8  |
| Age            | 16-18             | 24      | 12.0 | 12         | 21.8 |
|                | 19-21             | 70      | 5.0  | 26         | 47.3 |
|                | 22-24             | 78      | 39.0 | 13         | 23.6 |
|                | 25-27             | 16      | 8.0  | 3          | 5.5  |
|                | Above 27          | 9       | 4.5  | -          | -    |
| Religion       | Christianity      | 1.79    | 89.5 | 44         | 80.0 |
|                | Islam             | 19      | 9.5  | 11         | 20.0 |
|                | ATR               | 2       | 1.0  | -          | -    |

**Table 2.** Availability of Electronic Resources by Undergraduates.

| Electronic Resources  | Babcock   |      |               |      | Redeemer  |      |               |      |
|---|-----------|------|---------------|------|-----------|------|---------------|------|
|   | Available |      | Not Available |      | Available |      | Not Available |      |
|   | N         | %    | N             | %    | N         | %    | N             | %    |
| E-Journals  | 93        | 46.5 | 107           | 53.5 | 1         | 32.8 | 37            | 67.3 |
| E-Books   | 83        | 41.5 | 114           | 57.0 | 20        | 36.4 | 35            | 63.0 |
| CD-ROM  | 65        | 32.5 | 130           | 65.0 | 13        | 23.7 | 47            | 27.3 |
| Online databases such as AGORA, HINARI, ERIC, JSTOR, OARE, etc. | 66        | 33.0 | 126           | 63.0 | 17        | 30.9 | 38            | 69.1 |
| OPAC  | 91        | 45.5 | 101           | 50.5 | 18        | 32.8 | 37            | 67.2 |
| Internet  | 167       | 83.5 | 29            | 14.5 | 51        | 92.8 | 4             | 7.2  |

of the respondents in Babcock were in their final year, while most of the respondents in Redeemer were in 200 level. It was also shown that respondents in Babcock were a little older than those in Redeemer.

1(32.8%) response rate. This corresponds with Monopoli, et al.'s study (2002) who reported two third of the respondents (69.5%) in the University of Patras, Greece, favoured the electronic version over the print to read a journal article.

**Types and level of availability of e-resources to users in the selected private university libraries in Ogun State**

The study established the types and level of availability of e-resources to users in both private university libraries in Ogun State. Table 2 shows that the Internet was more readily available in Redeemer with 92.8% response rate than in Babcock library with 83.5% response rate. The least available e-resources was CD-ROM in Babcock university with 65(32.5%) response rate while e-journal was the least e-resources available in Redeemer with

**Purpose of using the e-resources by undergraduate's in the selected private university libraries in Ogun State**

The study intended to examine the purpose of use of the e-resources in the private university libraries in Ogun State. Table 3 reveals that most of the respondents in Babcock and Redeemer libraries used the e-resources for assignment with 128(64%) response and 49(89.1%) respectively, while the least of the respondents 30(15%) in Babcock and 18(32.7%) in Redeemer reported that

**Table 3.** Purpose of Use of E-Resources by undergraduates.

| Purpose          | Babcock |      | Redeemer |      |
|------------------|---------|------|----------|------|
|                  | N       | %    | N        | %    |
| Assignment       | 128     | 64.0 | 49       | 89.1 |
| Research/Project | 111     | 55.5 | 31       | 56.4 |
| Term Paper       | 47      | 23.5 | 32       | 58.2 |
| Seminar          | 30      | 15.0 | 18       | 32.7 |
| Class work       | 42      | 21.0 | 48       | 87.3 |

**Table 4.** Level of Use of E-Resources by undergraduates.

| Electronic Resources | Level of use |      |         |      |     |      |          |      |         |      |     |      |
|----------------------|--------------|------|---------|------|-----|------|----------|------|---------|------|-----|------|
|                      | Babcock      |      |         |      |     |      | Redeemer |      |         |      |     |      |
|                      | High         |      | Average |      | Low |      | High     |      | Average |      | Low |      |
|                      | N            | %    | N       | %    | N   | %    | N        | %    | N       | %    | N   | %    |
| E-Journals           | 28           | 14.0 | 101     | 50.5 | 63  | 31.5 | 9        | 16.4 | 27      | 49.1 | 19  | 34.5 |
| E-Books              | 27           | 13.5 | 99      | 49.5 | 66  | 33.0 | 5        | 9.1  | 27      | 49.1 | 22  | 40.0 |
| CD-ROM               | 18           | 9.0  | 86      | 43.0 | 88  | 44.0 | 2        | 3.6  | 26      | 47.3 | 27  | 49.1 |
| Online Databases     | 92           | 46.0 | 82      | 41.0 | 18  | 9.0  | 18       | 32.7 | 30      | 54.5 | 7   | 12.7 |
| OPAC                 | 28           | 14.0 | 81      | 40.5 | 82  | 41.0 | 5        | 9.1  | 23      | 41.8 | 26  | 47.3 |
| Internet             | 130          | 65.0 | 52      | 26.0 | 13  | 6.5  | 48       | 87.3 | 6       | 10.9 | 1   | 1.8  |

they used the e-resources for seminar in the university libraries. This supports the finding of Naushad and Nisha (2011) who reported that more than 60% of users in the Central Science Library in India were using e-journals weekly for the purpose of research, teaching and learning.

#### Level and frequency of utilization of e-resources in the selected private university libraries in Ogun State

The study examined the level and frequency of utilization of the e-resources in the selected private university libraries in Ogun State. Table 4 shows that majority of the respondents from Babcock 130(65%) and Redeemer 48(87.5%) indicated that there was a high level of internet utilization, while 101(50.5%) and 27(49.1%) respondents from Babcock and Redeemer respectively reported that the level of utilization of e-journals was average. Also, only 18(9.0%) respondents from Babcock and 7(12.7%) respondents from Redeemer revealed that online databases utilization was very low in university libraries. This present findings corroborated the findings of a study by Sathe et al. (2002) that undergraduates and medical students at Cornell University preferred electronic journals to print.

The majority 84(42%) of the respondents from Babcock University used the internet on daily basis, while only 15(7.5%) of them used the e-journals on daily basis, and most of them 78(39.0%) never used the CD-ROM (Table 5). For Redeemer's University, less than half of the

respondents 22(40%) used the internet on daily basis, while most of them 42(76.4%) used the online databases occasionally and only 2(3.6%) of them used the OPAC once a week.

#### Challenges to the utilization of e-resources by undergraduates' users in the selected private university libraries in Ogun State

The study identified the challenges of e-resources in the selected private university libraries in Ogun State. Table 6 indicates that majority of the respondents in Babcock 145(75.5%) and Redeemer 46(83.6%) were faced with the problem of poor internet connectivity. Also, the problem of inability to access the available electronic database was faced by the respondents from both Babcock 103(51.5%) and 32(58.5%) from Redeemer, while only few of the respondents from Babcock 78(39%) and 10(18.2%) from Redeemers disagreed with mal-function of the computer and to access e-resources respectively. However, lack of assistance from the library staff and lack of ICT skills were some of the barriers to the use of e-resources which were found to be more peculiar to the respondents in Redeemer than Babcock. This was affirmed by Olatokun (2009) who found that level of education had the strongest influence on the capability to use personal computer and computer with Internet services by different categories of people including students, with the respondents having less education being more disadvantaged in using the facilities.



**Table 5.** Frequency of Use of E-Resources by Undergraduate in Babcock University.

| Frequency of use of e-resources by undergraduate in Babcock University |       |      |             |      |              |      |               |     |              |     |               |      |       |      |
|--|-------|------|-------------|------|--------------|------|---------------|-----|--------------|-----|---------------|------|-------|------|
| Electronic Resources   | Daily |      | Once a Week |      | Twice a week |      | Twice monthly |     | Once a month |     | Occasion-ally |      | Never |      |
|  | N     | %    | N           | %    | N            | %    | N             | %   | N            | %   | N             | %    | N     | %    |
| E-Journal  | 15    | 7.5  | 17          | 8.5  | 17           | 6.5  | 6             | 3.0 | 15           | 7.5 | 73            | 36.5 | 52    | 26.0 |
| E-Book   | 16    | 8.0  | 18          | 9.0  | 15           | 7.5  | 7             | 3.5 | 11           | 5.5 | 64            | 32.0 | 59    | 29.5 |
| CD-ROM   | 11    | 5.5  | 7           | 3.5  | 16           | 8.0  | 9             | 4.5 | 14           | 7.0 | 55            | 27.5 | 78    | 39.0 |
| Online Databases   | 19    | 9.5  | 21          | 10.5 | 19           | 9.5  | 11            | 5.5 | 12           | 6.0 | 70            | 35.0 | 40    | 20.0 |
| OPAC   | 16    | 8.0  | 11          | 5.5  | 19           | 9.5  | 8             | 4.0 | 3            | 1.5 | 61            | 30.5 | 74    | 37.0 |
| Internet   | 84    | 42.0 | 25          | 12.5 | 27           | 13.5 | 6             | 3.0 | 4            | 2.0 | 47            | 23.5 | 1     | 5.0  |

**Frequency of Use of E-Resources by Undergraduate in Redeemer University**

| Electronic Resources | Daily |     | Once a Week |      | Twice a Week |      | Twice monthly |     | Once a month |     | Occasion-ally |      | Never |      |
|----------------------|-------|-----|-------------|------|--------------|------|---------------|-----|--------------|-----|---------------|------|-------|------|
|                      | N     | %   | N           | %    | N            | %    | N             | %   | N            | %   | N             | %    | N     | %    |
| E-Journal            | -     | -   | 3           | 5.5  | 2            | 3.6  | 1             | 1.8 | 3            | 5.5 | 30            | 54.5 | 15    | 27.3 |
| E-Book               | -     | -   | 2           | 3.6  | -            | -    | 1             | 1.8 | 5            | 9.1 | 32            | 58.2 | 14    | 25.5 |
| CD-ROM               | -     | -   | -           | -    | 2            | 3.6  | -             | -   | -            | -   | 35            | 63.6 | 17    | 30.9 |
| Online Databases     | 1     | 1.8 | 1           | 1.8  | -            | -    | 3             | 1.5 | 4            | 7.3 | 42            | 76.4 | 3     | 5.5  |
| OPAC                 | -     | -   | 2           | 3.6  | 4            | 7.3  | 1             | 1.8 | 4            | 7.3 | 11            | 20.0 | 32    | 58.2 |
| Internet             | 22    | 40  | 11          | 20.0 | 14           | 25.5 | 4             | 7.3 | -            | -   | 3             | 5.5  | -     | -    |

**Table 6.** Challenges to the use of e-resources by undergraduates.

| Challenges   | Babcock |      |          |      | Redeemer |      |          |      |
|--|---------|------|----------|------|----------|------|----------|------|
|  | Agree   |      | Disagree |      | Agree    |      | Disagree |      |
|  | N       | %    | N        | %    | N        | %    | N        | %    |
| Poor internet connectivity                             | 145     | 75.5 | 49       | 24.5 | 46       | 83.6 | 9        | 16.4 |
| Lack of relevant electronic resources in my discipline | 105     | 52.5 | 86       | 43.0 | 39       | 70.9 | 16       | 29.1 |
| Difficulty to access                                   | 95      | 47.5 | 95       | 47.5 | 38       | 69.1 | 17       | 30.9 |
| Erratic power supply                                   | 115     | 57.5 | 75       | 37.5 | 42       | 76.3 | 12       | 21.9 |
| No assistance from the library staff                   | 78      | 39.0 | 113      | 56.5 | 34       | 61.8 | 21       | 38.2 |
| Costly to access and use                               | 64      | 32.0 | 129      | 64.5 | 35       | 63.7 | 20       | 36.3 |
| Lack of technical know-how                             | 88      | 44.0 | 102      | 51.0 | 34       | 61.8 | 21       | 38.2 |
| Lack of training and support of staffs and users       | 103     | 51.5 | 89       | 44.5 | 33       | 60.0 | 22       | 40.0 |
| Inability to access the available electronic database  | 103     | 51.5 | 87       | 43.5 | 32       | 58.2 | 22       | 40.0 |
| Technological constraints                              | 101     | 50.5 | 88       | 44.0 | 28       | 50.9 | 27       | 49.1 |
| Lack of ICT skills                                     | 82      | 41.0 | 110      | 55.0 | 37       | 67.3 | 18       | 32.7 |
| Social factor  | 96      | 48.0 | 92       | 46.0 | 31       | 56.3 | 23       | 41.8 |
| Malfunction of the computer and access to e-resources  | 115     | 57.5 | 78       | 39.0 | 45       | 81.8 | 10       | 18.2 |

**Conclusion**

The availability and utilization of e-resources is a sine qua non to information acquisition by undergraduate students in the university libraries. The e-resources, particularly the Internet and e-journals are important sources of information for the university undergraduate students in Babcock and Redeemers Universities. This is evident in the study as the students continuously used these resources for various activities like assignments,

research/project, term paper and class works usually on daily basis and sometimes.

The study also concluded that the Internet was readily available in the university libraries. In addition, respondents from both university libraries affirmed the Internet was highly utilized and the level of utilization of e-journal was average. Moreso, the Internet and e-journal were used on a daily basis, OPAC was used once a week and CD-ROM was never used as indicated by the respondents.

The availability and use of e-resources has no doubt contributed meaningfully to the information acquisition for class work and research needs of the students. It is therefore important to note that as undergraduate students, there is always the need to consult and use the e-resources for information, academics and research needs.

Finally, the respondents identify challenges encountered while using the e-resources, some of which are: poor Internet connectivity, lack of assistance from the library staff and lack of ICT skills, erratic power supply as well as malfunction of system were some of the problems faced by the respondents.

## RECOMMENDATIONS

The following recommendations were made based on the findings of the study;

1. More relevant, adequate and up-to-date e-resources should be made available to the library users at all times to satisfy their information needs.
2. Efforts should be made by the university administrators and library management to improve on the bandwidth and enhance the internet connectivity so as to enable the students has easy access to online e-resources.
3. Level of awareness of the availability of e-resources should be increased to the library users.
4. Trained personnel should be on ground to assist the students in the use of the available e-resources in the university libraries.

## Conflict of Interests

The authors have not declared any conflict of interests.

## REFERENCES

- Adedeji SO (2000). Resources adequacy and academic performance in Osun State vocational secondary schools. *Afr. J. Edu. Manage.* 5(182):35-41.
- Aguolu CC, Aguolu IE (2002). *Libraries and Information Management in Nigeria*. Maiduguri: Ed-Linform Services.
- Bhat M (2009). Increasing the discovery and use of e-resources in university libraries. Retrieved March 25, 2011, from <http://www.Inflibnet.ac.in/caliber2009/Calabar.PDF/6.7pdc:1-5>
- Borgman CL (2000). *From Gutenberg to the global information infrastructure: access to information in the networked world*. Cambridge, MA: MIT Press.
- Eason K, Richardson S, Yu L (2000). Patterns of use of electronic journals. *Journal of Documentation* 56.5: 477-504.
- Fatoki OC (2004). Library automation in Nigeria: the Kenneth Dike Library experience. *Lagos. J. Libr. Inform. Sci* 2.2: 111-116.
- Gakibayo A, Ikoja-Odongo JR, Okello-Obura C (2013). Electronic information resources utilization by students in mbarara university library. *Library Philosophy and Practice (e-journal)*. Paper 869. Available at <http://digitalcommons.unl.edu/libphilprac/869>
- Iyoro AO (2004). Serial availability, accessibility and utilization: perceptions of in-training information professionals in a Nigerian university. *Niger. Libr. Link* 11(2):66-71.
- Jagboro KO (2003). A study of Internet use in Nigerian Universities: A case study of Obafemi Awolowo University, Ile-Ife, Nigeria. *First Monday* Volume 8(2). Available at: <http://dx.doi.org/10.5210%2Ffm.v8i2.1033>
- Ka WF (2005). The role of university libraries in supporting research in Hong Kong: facing a new challenge. *Campus-Wide Inform. Syst.* 22(1):43-50.
- Manda PA (2006). State of ICTs in LIS curriculum in Tanzania. A paper presented at the IFLA workshop on Integrating ICTs in LIS curriculum in Africa. 21-23 November at Safari Court Hotel, Windhoek – Namibia.
- Marama ID, Ogunrombi SA (2000). Availability of library and information science collections in Nigerian university libraries. *Library Bulletin: Niger. Uni. Libr. Syst.* 1:2.
- Monopoli M, Nicholas D, Georgiou P, Korfiati M (2002). A user-oriented evaluation of Digital Libraries: Case study the electronic journals' service of the library and information service of the university of Patras, Greece. *Aslib Proceedings*. 54(2):103-117.
- Naushad Ali P, Nisha F (2011). Use of e-journals among research scholars at Central Science Library, University of Delhi. *Collection Building*. 30(1):53-60.
- Ojo RA, Akande SO (2005). Students access, usage and awareness of electronic information resources at the University College Hospital, University of Ibadan, Nigeria. *Lagos J. Libr. Inform. Sci.* 3.1: 16-24.
- Okoye RB (2000). Assessing students' and faculty use of academic libraries in Nigeria: the case study of Delta State University, Abraka. *Frontiers Libr. Inform. Sci.* 1(1): 65-75.
- Olatokun WM (2009). Analyzing socio-demographic differences in access and use of ICTs in Nigeria using the capability approach. *Issues in Inform. Sci. Inform. Technol.* 6:479-496.
- Sathe NA, Grady JL, Giuse NB (2002). Print versus electronic journals: a preliminary investigation into the effect of journal format on research Processes. *J. Med. Libr. Asso.* 90(2):235-243.
- Tenopir C (2003). *Use and users of electronic library resources: an overview and analysis of recent research studies*. Washington, DC: Council on Library and Information Resources Retrieved 12 July 2011 from <http://www.clir.org/pubs/reports/pub120/pub120.pdf.html>
- Weitz J (2006). Cataloguing electronic resources: OCLC-MARC coding guidelines. Retrieved 10 March 2014 from <http://www.oclc.org/support/services/worldcat/documentation/cataloging/electronicresources.en.html>

*Full Length Research Paper*

## Use of periodicals in Engineering College Libraries under North Maharashtra University, Jalgaon

Prashant S. Bhat

Shri Sant Gadge Baba College of Engineering and Technology, ZTC, Bhusawal, India.

Received 4 August 2012; Accepted 18 October, 2012

Engineering college libraries attempt to meet the need of a diverse and complex group of users, who have wide ranging interest and complex sets of demands. Over the course of the last decade, very valuable resources of information have become available through the Internet and other electronic database, and libraries are currently playing role very different from that of before. Periodical serials are the bedrock of research activities. Periodicals are best source for up-to-date information in a particular field. They are publications which are issued at regular interval, such as journals, magazines and newspapers. They are also often referred to as serials. So researchers want to know the use, purpose and utilization of the periodicals by the users.

**Key words:** Periodical, engineering colleges, e-journals.

### INTRODUCTION

Periodicals can have some advantages over books depending on the information needed. However, when using periodicals, it is important to understand the difference between scholarly and popular documents. They include journals, newspapers and magazines. Serials are very unique, contain current information and very useful for study, teaching, learning and research purpose. The introduction of electronic resources has continuing impact on library collection. The term serial is used in a broader term to refer to the periodically published documents such as periodicals, journals, magazines, bulletins, newsletters and research institutions, newspapers.

Periodicals constitute a considerable part of the holding of a library next to book, in any kind of library. A serial is considered to be a publication which is issued in successive part with numbering or chronological

designation and intended to be continued indefinitely (Mittra, 1988). The terms periodicals, journals or magazine tend to be used interchangeably but sometime distinctions are made among terms. Journals are received for scholarly and research oriented title, while magazine is considered to refer to more popular publication. These are very important documents mainly for two reasons: 1) contributions published in the periodicals convey the latest or update information on specific subject areas yet published and 2) the information or content of the periodicals publications may not be available in book (Khan, 1978; Gaur, 2003; Kumar, 1998).

Therefore, the periodicals articles and research papers in academic journals are distinct source of information or knowledge, whether published in current or back issues.

E-mail: [prashantbhat19@gmail.com](mailto:prashantbhat19@gmail.com). Tel: 9922919441.

Author(s) agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](http://creativecommons.org/licenses/by/4.0/).

Serials are documents with the following characteristics: a reasonably permanent title of some sort which may be changed from time to time, published usually at regular intervals and frequency of publication is declared by issuing body. The contents are usually different from issue to issue, but a contribution may be continued in more than one issue. Each issue of a serial must have the number of issue printed on it, which is a continuing number in relation to the immediate previous issue number and immediately following number.

### **AICTE norms for the library**

Engineering Institute should have carefully selected books and periodicals. As per the AICTE norms at the beginning of the institute, 250 titles and 1000 volumes are essential, including 6 national and 6 International are also required.

E-journals are called by various names such as electronic journals, Internet based serials, online journals, e-serials and electronic serials. But the term 'e-journals' have become a standard name for calling electronic journals, as these are available electronically via a computer or a computer network. The advantage of the electronic resources is that many users can simultaneous access a single electronic copy from many locations.

### **Objective of the study**

- 1) To identify the purpose and utilization of periodicals by faculty members.
- 2) To know the frequency of use of e-Journals/E-resources by faculty members.
- 3) To prepare a union catalogue of periodicals for the benefit of users.

### **Hypothesis**

- 1) The collection of periodicals in engineering colleges is based on AICTE norms.
- 2) The faculties members see the use and advantage of the periodicals as quite satisfactory.
- 3) The users need training for handling the electronic resources
- 4) Union Catalogue of periodicals is not available.

### **Scope of the study**

The study covers the users of engineering colleges under North Maharashtra University during 2009 to 2010. There are a total of 13 engineering colleges under North Maharashtra University. Under these engineering colleges total faculty members were 1150 from different courses. The population is large so the researcher selected only H.O.D

and one senior faculty member from each course/branch. A total number of 126 questionnaires are distributed to faculty members, out of which 90 questionnaires are received.

### **METHODOLOGY OF THE STUDY**

The survey method is used for this study. Questionnaire technique is used to collect the relevant data from the faculty members of engineering colleges under North Maharashtra University.

#### **Sampling method**

Stratified sampling is used for this study.

#### **Central Library, North Maharashtra University, Jalgaon**

Central library was established during 1991 to 1992. Central Library has 52,744 collection of books, 142 print Journals and also available are e-journal exam, IEEE, ASME, ASCE etc.

The library provides the following services: access to online journals under UGC-Inflibnet program, home lending services, reprography, reading room, internet searching, reference service, inter library loan services etc (Krishan, 1987, Lazinger et al. 1998).

### **ANALYSIS AND PRESENTATION OF DATA**

Questionnaires were distributed to the faculty members of engineering colleges under North Maharashtra University. 126 questionnaires were distributed to the H.O.D. and one senior member of each branch of 13 engineering colleges. Out of this, only 90 questionnaires were received from the respondents. Two colleges did not respond. The percentage of respondent is 71.42%. The data collected are presented in appropriate tables and analysis is made along with observation.

In general information section the questionnaire provides information regarding gender, as seen in Table 1. It is shown in the table that 93.33% faculty members are males and only 6.33% of them are females, who can use periodicals available through library for different purposes.

Table 2 reveals that 20% of faculty members are in both mechanical and electronic communication branch; 17.77%, computer branch; 11.11%, civil branch; 10%, electrical IT; 7.77%, Eng. sci. and only 2% faculty members are from biotech branch.

Table 3 indicates that the majority of 81.1% faculty members have ME (Master in Engineering); 8.8% of them have Ph.D.; 5.5%, have Msc, followed by M.Tech. (2%) and BE (2%).

The designation wise distribution of respondents is shown in Table 4. 55.44% of respondents are H.O.D; 32.22%, Asst. professor; 11%, professor and 2%, lecturers.

Most of the respondents say that they select the periodicals using the subject teacher (58.88%), 34.40% respondents say that they select the periodicals by using periodical catalogue and 12% respondents say that they select the periodical by using the periodicals from other colleges, 44% respondents say that they get recommendation of librarian while selecting the periodicals (Table 5).

Table 6 reveals that, out of 90% respondents, 48.88% of faculty members use print journals once a week, 20% faculty members use journals daily, 20% faculty members use print journals occasionally. 32% respondents say that they use e-journals daily.

Question asked about the subscription of e-resources to the 11 engineering colleges, 3 of them do not subscribe to the e-resources.

**Table 1.** List of colleges under study.

| Name of college                                      | Department | Faculty members |
|--|------------|-----------------|
| Shri Sant Gage Baba College of Engineering           | 5          | 95              |
| G.H. Raison Institute of Engineering, Jalgaon        | 5          | 80              |
| J.T. Mahajan College of Engineering, Faizpur         | 5          | 105             |
| K.C.E. College of Engineering, Jalgaon               | 3          | 55              |
| Godavari College of Engineering, Jalgaon             | 5          | 75              |
| Shri Gulabrao Deokar College of Engineering, Jalgaon | 4          | 70              |
| R.C. Patel College of Engineering, Shirpur.          | 4          | 90              |
| D.N. Patil Institute of Technology, Shahada          | 7          | 120             |
| Bambhori College of Engineering, Jalgaon             | 7          | 150             |
| Government College of Engineering, Jalgaon           | 5          | 85              |
| S.S.V.P.S College of Engineering, Dhule              | 6          | 110             |
| Nagaon College of Engineering                        | 3          | 60              |
| Navalnager College of Engineering                    | 4          | 55              |
| Total  | 63         | 1150            |

**Table 2.** Gender of faculty members.

| Gender | Number | Percentage (%) |
|--------|--------|----------------|
| Male   | 84     | 93.33          |
| Female | 6      | 6.66           |

**Table 3.** Qualification of faculty members.

| Qualification         | Respondent | Percentage (%) |
|-----------------------|------------|----------------|
| Master of Engineering | 73         | 81.11          |
| ME, Ph.D              | 08         | 8.8            |
| MSC                   | 05         | 5.55           |
| M.Tech.               | 02         | 2.22           |
| B.E.                  | 02         | 2.22           |
| Extra qualification   | 24         | 26.6           |
| Total                 | 90         | 99.90          |

**Table 4.** Designation of faculty members.

| Designation                | Respondent | Percentage (%) |
|----------------------------|------------|----------------|
| H.O.D.                     | 49         | 54.44          |
| Professor                  | 10         | 11.11          |
| Asst. Professor / Lecturer | 31         | 34.44          |
| Total                      | 90         | 99.99          |

Table 9 shows that 46% faculty members have faced problem of lack of training while using e-journals, 23% faculty members faced lack of information on e-resources and 14% faculty members have faced lack of operating funds for using e-resources (Table 7).

The respondents were requested to indicate the success rate in finding the required information in periodicals (Table 9). Table 9 shows that, 55.55% of respondents succeeded in the range of 50 to 74, followed by 35%.

## FINDINGS OF THE STUDY

After analysis of the data some findings are made and enumerated below:

i) From the aforementioned data analysis, it is found that majority of faculty members (48.88%) use print periodicals

**Table 5.** Selection of periodicals.

| Selection of periodical                  | Respondent | Percentage (%) |
|--|------------|----------------|
| Student demand                           | 06         | 6.66           |
| From subject teacher                     | 53         | 58.88          |
| From the catalogue of periodical         | 31         | 34.44          |
| Seeing the periodical from other college | 11         | 12.2           |
| Librarian recommendation                 | 40         | 44.44          |

**Table 6.** Frequency of using print journal/periodicals, E-Journals.

| Frequency          | Using E- journal | Percentage (%) | Using print journal respondent | Percentage (%) |
|--------------------|------------------|----------------|--------------------------------|----------------|
| Daily              | 29               | 32             | 18                             | 20             |
| 2-3 times in a day | 05               | 5.55           | 06                             | 6.66           |
| Once a week        | 36               | 40             | 44                             | 48.88          |
| Once a month       | 03               | 3              | 01                             | 1.11           |
| Occasionally       | 03               | 3              | 18                             | 20             |
| Never              | 14               | 15             | 14                             | 15             |

**Table 7.** Purpose of using periodicals.

| Purpose of using periodical                           | Respondent | Percentage (%) |
|---|------------|----------------|
| For communication                                     | 02         | 2.22           |
| For finding relevant information in my specialization | 13         | 14.44          |
| Update subject knowledge                              | 55         | 61             |
| Teaching purpose                                      | 72         | 80             |
| For research purpose                                  | 04         | 4              |

once a week and only 20% of them use the print periodicals daily.

ii) It is found that most libraries select the periodicals through the subject teacher.

iii) Majority of faculty members (80%) use print periodicals for teaching purpose and 61% of them use the periodicals for updating the subject's knowledge and research purpose.

iv) Regarding the success rate of finding the required information in periodicals 55.55% of faculties rated that they have succeeded in the range of 50 to 74.

v) Using the e-journals 40% of faculty members use e-journals once a week and 32% of them use the e-journals daily.

vi) 46% of faculty members have faced lack of training as the main problem while accessing e-journals.

vii) 46.66% of faculty members download online journals in storage device for reading them later and 27.7% of them prefer to see the journals on computer screen.

viii) 78.87% faculty members consult the library staff members for their required information.

ix) It is found that out of the 11 engineering colleges, 3 of them do not subscribe to the e-journals.

x) It is observed from the survey that different types of

periodical collection are available.

xi) Faculty members use national and international journals for their reading purpose.

## TESTING OF HYPOTHESIS

1) HO<sub>1</sub>: From the observation of the study, it is concluded that different types of periodical collection are available in engineering colleges under North Maharashtra University.

2) HO<sub>2</sub>: The faculty members see the use and advantage of periodicals as quite satisfactory.

a) Out of 90 respondents, 48.88% of faculty members use print journals once a week, while 20% of them use journals daily. In Table 8, it is observed that 40% faculty members access online journals once a week, while 32% of them access them daily

b) With the above discussion, it can be concluded that faculty members see the use of periodicals as quite satisfactory.

3) HO<sub>3</sub>: The users are need of training for handling the electronic resources. Table 9 shows that 46% faculty members have faced problem of lack of training while using e-journals/electronic resources. The finding of the

**Table 8.** Problem faced while using e-journals.

| <b>Problem faced while using E-Journals</b> | <b>Respondent</b> | <b>Percentage (%)</b> |
|---|-------------------|-----------------------|
| Lack of training                            | 42                | 46                    |
| Lack of information on electronic resources | 21                | 23                    |
| Lack of operating funds                     | 13                | 14                    |

**Table 9.** Success rate of finding required information in periodicals.

| <b>Success rate of finding information in periodical (%)</b> | <b>Respondent</b> | <b>Percentage (%)</b> |
|--|-------------------|-----------------------|
| 100  | 0                 | 0                     |
| 75-99  | 08                | 8.88                  |
| 50-74  | 50                | 55.5                  |
| 25-49  | 32                | 35.55                 |
| Less than 25   | 0                 | 0                     |

study indicates that faculty members are in need of skills for handling the e-resources.

4) HO<sub>4</sub>: From the observation of the study, it is found that there is no union catalogue of periodicals available in engineering college libraries under NMU.

## **SUGGESTION**

**Based on the finding of the study the following suggestions are made**

- 1) It is essential to create awareness among faculty members about the use of periodicals.
- 2) The librarian must conduct programmes for faculty members regarding the use of periodicals and electronic resources and also arrange information literacy programme for the users of library.
- 3) In order to improve the efficiency of the users towards access to periodicals/ journals the institute should provide hands on experience and conduct user orientation programmes.
- 4) There is need to include more numbers of online journals in various disciplines.
- 5) More funds should be given to subscribe the online journals in engineering colleges.
- 6) Resource sharing of periodicals among engineering college libraries under NMU is required.

## **Conclusion**

Periodicals/journals play a vital role in the field of engineering. Print periodicals and online journals are most important for every engineering college as per AICTE norms. Lack of awareness, lack of training among faculty members and proper infrastructure in the library are major de-motivating factors in the use of periodicals. The speed of availability and easy accessibility to information makes the faculty members to use electronic resources more frequently.

## **REFERENCES**

- Gaur RC (2003). Reengineering Library and Info. Serv. Allied Pub. p. 41.
- Krishan K (1987). Reference Service, Vikas Pub.
- Khan MTM (1978). Information Organization & Communication, Ess. Ess. Pub. p. 20.
- Kumar PSG (1998). Fundamental of Information science, Pub. S. Chand.
- Lazinger SS, Bar-Ila J, Peritz BC (1998). "Internet Use by Faculty Members in Various Disciplines: A comparative case study," J. Am. Soc. Info. Sci. 48(6):508-518 Dec.
- Mittra DP (1988). "A census of Indian Library and Information Science ILA Bull. 24(2):20 July-Sept.

## **Citation**

- Library Herald (2006). 44(4):42.
- Mahapatra PK (1999). Collection Management in Libraries, Ess Ess Publication, p. 96.
- Muhammed R (1992). Serial Management in Libraries, Atlantic Pub.1992



# International Journal of Library and Information Science

## Related Journals Published by Academic Journals

- Educational Research and Reviews
- Philosophical Papers and Reviews
- African Journal of History and Culture
- Journal of Languages and Culture
- Journal of Fine and Studio Art
- Journal of African Studies and Development

**academicJournals**